

Shurly (E. L.)

THE

GALVANO-CAUTERY

AS A

THERAPEUTICAL MEASURE IN CHRONIC NASAL
AND NASO-PHARYNGEAL CATARRH.

BY

E. L. SHURLY, M.D.,

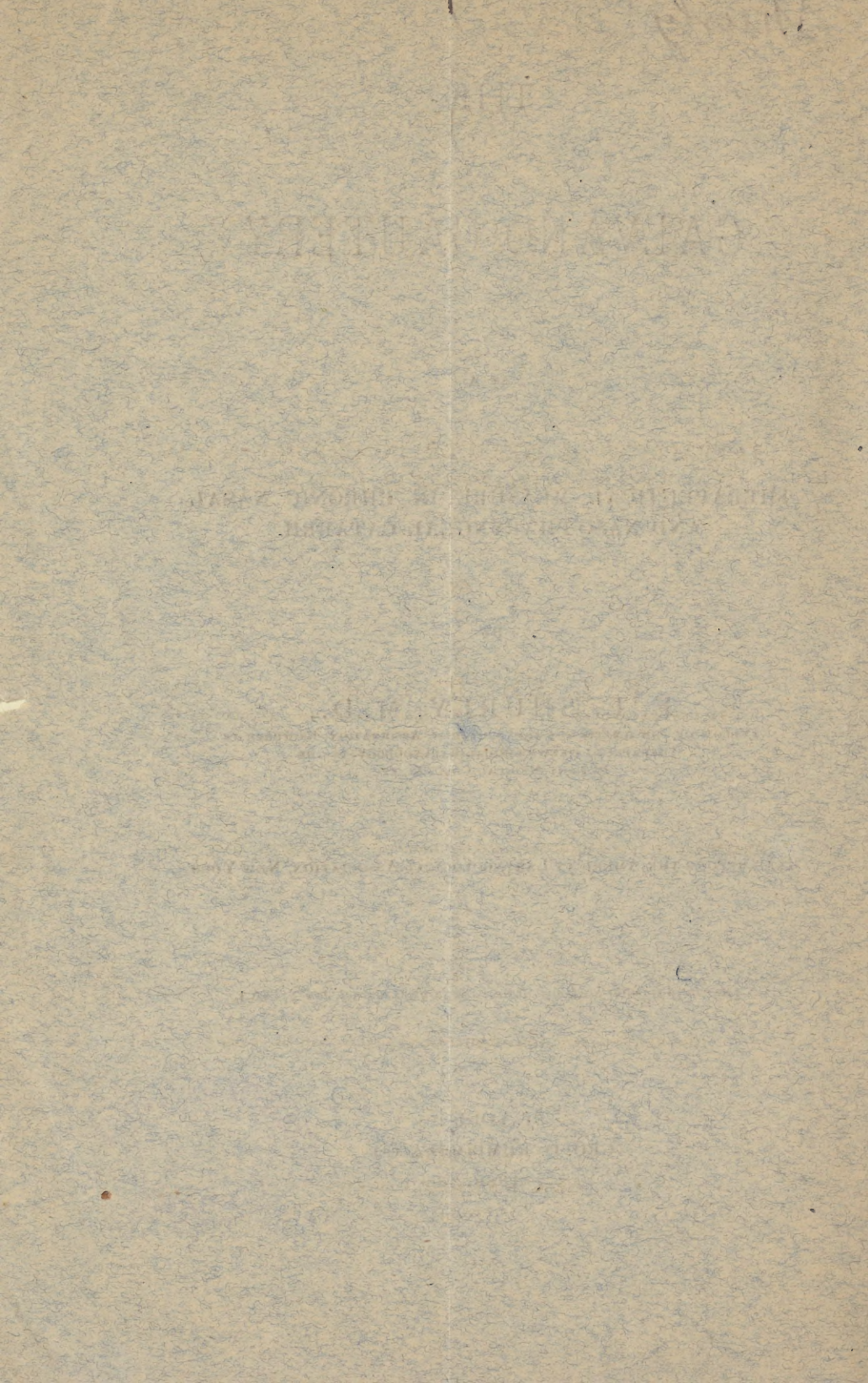
FELLOW OF THE AMERICAN LARYNGOLOGICAL ASSOCIATION, LECTURER ON
THERAPEUTICS AND CLINICAL LARYNGOLOGY, IN THE
DETROIT MEDICAL COLLEGE, ETC.

READ BEFORE THE AMERICAN LARYNGOLOGICAL ASSOCIATION, NEW YORK.

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THE GALVANO-CAUTERY AS A THERAPEUTICAL MEASURE IN CHRONIC NASAL AND NASO-PHARYNGEAL CATARRH.

It is not my intention to present a long compilation of the literature of chronic nasal and naso-pharyngeal catarrh, with annotations; but to invite your attention at once to the points connected with the use of galvano-cautery as a therapeutic measure in these conditions. The pathological state of the nasal and naso-pharyngeal lining, to which this agent seems applicable, may be briefly summed up and expressed as either hyperplasia, glandular hypertrophy or atrophy, ulceration or neoplasm, attended by excessive, deficient or altered secretion and innervation.

These structural changes, affecting narrow and delicate passages, which are so intimately connected with the important functions of respiration, vocalization, articulation and the senses of hearing, taste and smell, beget, in many individuals, as we are all aware, a train of functional derangements which demand strenuous effort at cure—not alone amelioration—while in a few a considerable amount of such structural change is borne with but little or no local or general disturbance. Now, passing in review the local medicaments hitherto in use for the relief and cure of these morbid conditions, we find that the various astringent, detergent, emollient and so-called alterative snuffs, douches, pigments, sprays and vapor inhalations have been attended with but a small degree of permanent relief as compared with the result of similar treatment applied to other overt mucous surfaces.

This apparent failure perhaps is due to the incompetence of such measures to produce radical vital change. Therefore I have been led to believe, with others, that more or less destruction of a portion of the altered mucous membrane must be accomplished in order to effect a cure. This becomes necessary,

not only for the important object of relieving mechanical obstruction of the nasal passages; but also—through destruction of glandules, varicose blood vessels, etc.—for the purpose of exciting physiological cell growth in the surrounding tissues.

This proposition being granted, the question arises, with what agent or agents can we best accomplish our purpose? The mineral caustics, such as nitrate of silver, etc., have been adopted with considerable success; also the practice of evulsion or cutting off exuberent portions of nasal mucous membrane by means of forceps and scissors. But each of these methods being not only very painful, but only applicable to the more accessible portions near the anterior nares, are consequently open to objection. We have, however, in the galvano-cautery (first applied, I think in this practice by Voltolini), an agent which, to my mind, answers every requirement.

The great danger of using so potent a destructive agent in such regions as the nose, naso-pharynx and pharynx has been urged (very properly perhaps) as an objection to its adoption, and ought to be appreciated by every operator. But if the proper instruments are at hand, the hand steady and the battery under control, it is as devoid of danger and as easy of application as any other agent which might be selected for cautery purposes.

I once had the misfortune to burn not only the exuberant portion of mucous membrane covering the turbinated bone, which I was after, but the opposite part of the septum, which nearly resulted in permanent agglutination and consequent obstruction of the nasal passage. But such an accident need never happen if the parts are properly protected.

For applications to the anterior and middle portions of the inferior and middle turbinated bones, a nasal speculum, affording proper protection to the meatus, is indispensable; those preferred, so far as I know, are the ivory cylinder devised by Dr. Lennox Browne and constructed with a longitudinal slit or fenestra through which the diseased membrane is touched; or, what is still better, the speculum devised by our distinguished President, and bearing

his name (the Elsberg speculum) the blades of which, as suggested by Dr. Browne, are made of ivory. Both of these instruments, although very excellent, are open to some objection, according to my experience. The former (Browne's), although giving most perfect protection, is too large for introduction and maintenance in many nostrils, while it allows of only a limited exposure of surface, and that for only a short distance in. And the latter

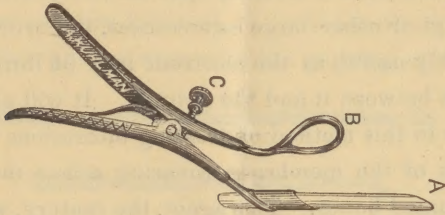


Fig. 1.

Self-retaining nasal speculum, with sliding ivory blade, which serves to protect opposite side of nasal passage from the glowing electrode.

(Elsberg's) is too heavy to be self-holding, with blades too narrow to afford good protection, and too long to be introduced and opened far in the meatus without producing considerable pain. For these reasons I have devised a speculum (Fig. 1) for this purpose which should be in a measure free from these objections, and still be easy of introduction for applications well into the nares. It is composed of two parallel limbs, connected by a joint near their center, similar to the Elsberg speculum. At the nasal extremity one limb is finished into a fenestrated blade for holding out the ala, and the other into a slot-like blade, into which slides a thin concavo-convex plate of ivory, about two inches long by about one-half inch wide. The handles (which are short) are held separated and the blades in apposition by a small intervening spring, while the blades are separated by means of a small thumb screw. I generally use a pair, one for each nostril; but this is not absolutely necessary, as the instrument may be inverted for introduction to the opposite side of the nose.

It should be introduced with the blades in apposition and the

ivory shield pulled out. Then, after pushing the shield gently in along the septum to the required depth, the blades may be separated and the cartilaginous nose dilated to the required width by means of the small thumb-screw. Now the cautery electrode may be introduced along the ivory plate as a guide, the current turned on, and the diseased membrane destroyed to the required depth and extent; or, after the plan of Michel, several fine lines may be drawn across a selected spot at one introduction. In burning polypi or other large excrescences, the ivory plate will be found highly useful, as the electrode may be introduced with great freedom between it and the growth. It will also be found very effective in this method of treating ulcerations and papular protuberances of the membrane covering either the middle or inferior turbinated bones. This agent, the cautery, will be found none the less useful in the treatment of structural change, neoplasms and ulceration at the posterior nares and vault of the pharynx.

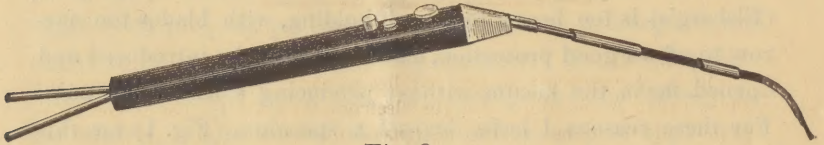


Fig. 2.

Fig. 2 illustrates the handle with the pharyngeal electrode attached; on the upper surface are the two posts for the adjustment of wire reel represented at the right hand of Fig. 3.

For applications to these regions I use either a long electrode or knife insulated except at the extremity, which is passed through from the anterior nares and applied to the part, under the guidance of the rhinoscopic mirror, or curved electrodes with platinum points, constructed so as to pass through the mouth and up behind the soft palate to the place to be touched. I am in the habit of securing the soft palate for these operations according to the method of Surgeon Wales, U. S. N., by passing a rubber cord through the floor of the nose and out through the mouth. This can be readily done without the aid of a Belloque's sound, and is much more agreeable to the patient than the palate hook.

It is obvious, of course, that these manipulations are bereft of much danger by possessing perfect control of the electric stream, which may be obtained most perfectly, I think, by using a handle with a current breaker, easily managed by the operating hand, such as has been made for me by the Detroit Electrical Works.

Regarding the galvano-cautery snare or wire for the removal of polypi, I have had but little experience except to learn how difficult it is to apply it. In "chronic follicular pharyngitis" the most rapid success has followed, in my hands, the touching of exuberant patches and varicose with the glowing electrode.

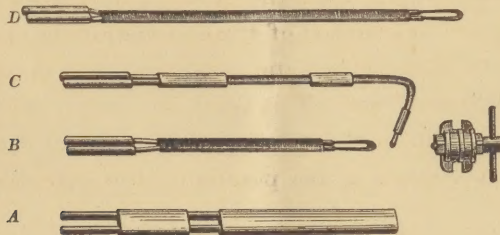


Fig. 3.

Fig. 3. *A* represents the two parallel tubes through which the wire for a snare runs; *B*, the short straight electrode or knife for use in the anterior part of the nares; *C*, the post nasal electrode to be introduced behind the soft palate, and *D* the long electrode or knife for introduction through the nares to posterior ends of turbinated bones and pharynx.

In closing, allow me to express the hope that the galvano-cautery may be more extensively employed for the relief of these common and troublesome morbid conditions of the nose and pharynx.

